# BARRICADE



# **Back Care — Safety Training Series**

# LIFTING

What have they learned over the years about proper lifting:

- Bend at the knees.
- Keep head up.
- Lift with the legs.
- Hold the load close.
- Avoid twisting.
- Stable footing.
- Too heavy, get help.

How does a small child just learning to walk, pick up an object?

- Bend at the knees / they squat.
- Keep head up / they squat.
- Lift with the Legs.
- Hold the load close / too far they cannot handle the load.
- Avoid twisting / or they will fall.
- Stable footing / or they will fall
- Too heavy / they scream to get help.

Technique is naturally performed the way the body was designed to move so that stress on the body is minimized.

As they grow older they unlearn this natural behavior by watching adults perform lifting tasks. They observe that its faster not to lift correctly and it becomes a habit, therefore, stress is increased.

#### THE STRUCTURES OF THE BACK

The functions of the back structures are to:

- Provide support and mobility / Vertebrae, Ligaments, Muscles and Nerves.
- Protects the spinal cord / Vertebrae and Discs.
- Absorbs shock / Discs.

Anything that stresses the structures of the back can cause back pain.

#### MAINTAIN A NEUTRAL BACK

- Neck or Cervical Curve
- Lower Back or Lumbar Curve

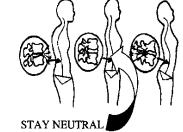
The back is exposed to least amount of stress when the natural, "neutral" curves of the spine are maintained.

Sitting is more stressful on your back than standing. It's important to have it well supported when sitting and use a properly adjusted backrest.

#### STAY NEUTRAL

Keep the curves

- Too much curve back is stressed.
- Too little curve back is stressed.



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#### EXTERNAL/INTERNAL BODY MECHANICS

External body mechanics (factors) include:

- Force applied = Weight of the object being handled plus body weight.
- Distance = How far away from the person the object is being handled.

# Internal body mechanics (factors) include:

- Posture of the worker as they perform the job task(s).
- Physical condition of the worker in comparison to the physical demands of the job task(s).

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#### **WARNING SIGNS**

Be aware of early personal physical warning signs and take the necessary steps to prevent yourself from becoming injured.

Warning signs include:

- Soreness
- Stiffness
- Cramping
- Persistent pain
- Swelling
- Restricted movement
- Inflammation

#### BEHAVIORAL WARNING SIGNS

- Rubbing
- Altered work methods
- Slow movements
- Facial grimacing

If you should notice any of these behavioral changes in yourself or others, you need to take steps to prevent a back injury...Help yourself out and others!

# **BACK INJURIES**

Factors that affect or stress the spine include:

- Distance of object
- Load weight
- Size and shape
- Number of lifts
- Lift distance
- Body twisting
- Hand grip

The more often you use poor body mechanics, the greater the risk of a back injury.

#### NATURAL LIFT

The natural lift method is preferred because it does not involve "consciously regulating" various parts of the body while lifting. This behavior increases muscle tension that can lead to back injury. Lift naturally.

#### REDUCE THE FORCE

- Prepare for the lift.
- Break down loads / Don't take so much.
- Use the stronger muscles to perform the work (i.e. lift with the legs/push don't pull).
- Move smoothly don't jerk.
- Use devices (i.e. carts, lift trucks) whenever possible.

#### REDUCE THE DISTANCE

- Get close to the object.
- Keep the load close.
- Keep the load between the shoulder and knees
- Get help for bulky/heavy loads.

# **USE GOOD POSTURE**

- Lock in the low back too keep the lumbar curve.
- Don't twist.
- Bend your legs.

#### PHYSICAL CONDITION

- Weight /lifting own body weight in addition to the weight of the object being handled.
- Nutrition
- Rest
- Exercise / stress busting.
- Know your limit / when an object is too heavy.
- Use the stomach muscles to help with the lift.

#### **STRESS**

This is the most difficult to control, but when possible:

- Recognize the causes and try to avoid or deal with them.
- Take control of a situation don't let the situation take control of you.
- Use relaxation techniques -Count to ten/take deep breaths.
- Maintain good relations with co-workers.
- Know when to talk to your supervisor.

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# PREPARE BEFORE YOUR LIFT

Think about the lift. Try to break your bad habits and get back to the natural way of performing the task - so that you can minimize the stress to your back and decrease the likelihood of getting hurt.

- Size up the load
- Evaluate the load
- Inspect the area

# **GENERAL LIFTING TIPS**

- Keep load close
- Good base support
- Lift smoothly
- Do NOT twist
- Maintain natural back curve
- Keep chin level
- Use leg strength
- Tighten abdominal muscles
- Breathe naturally
- Get help

# **LIFTING METHODS**

- One handed
- Two handed
- Lifting from a container
- Lifting from high places

# TECHNIQUES FOR OTHER TASKS

- Sitting
- Standing
- Stooping
- Carrying
- Pushing
- Pulling
- Reaching

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